A.J. Stevens AJS

Minutes of meeting: Radiation Safety Committee

Date: Wednesday, April 21, 1999

Present: L. Ahrens, D. Beavis, M. Brennan, P. Cirnigliaro, A. Etkin, W. Glenn, P. Ingrassia, E. Lessard, B. Oerter, W. MacKay, S. Musolino, S. Peggs, J. Sandberg, C. Schaefer, P. Stein, A. Stevens.

Subj: Planning for RHIC Commissioning, Second Meeting.

The purpose of this meeting was to address the concerns expressed in the minutes of the 04/09/1999 RSC meeting.

Steve Peggs outlined the plan for commissioning. His presentation, attached to these minutes, also addressed most of the concerns expressed at the April 9 meeting. One aspect of the concerns, which was aimed at procedure(s) intended to limit beam loss under an uncontrolled area of the collider berm, was the subject of much discussion during this meeting, but was not resolved. A sub-committee meeting has been scheduled for Friday, April 23 to discuss this issue further. Subject to satisfactory resolution of this issue, the committee found the commissioning plan to be consistent with the operational safety limits. Steve's suggestion that the RSC maintain a continuing awareness of developments during commissioning by assigning a member to attend the daily Beam Commissioners meeting was adopted. A. Stevens volunteered to be the "default" RSC member at these meetings.

The only concern not addressed in the attachment is the system for obtaining some fixed number of injected bunches from the AGS. The minutes of 04/09/1999 had requested an explanation of the system, which was provided at this meeting by Mike Brennan. An attempt to summarize Mikes description of the system that triggers the AGS extraction kicker (an orbit bump and septum must also be properly set) follows.

The operator interface is an application program. The operator must choose a pattern of buckets and how many are to be filled within that pattern. A variety of patterns are available (up to 120 buckets). There are two modes of operation, asynchronous (manual) and automatic. In the manual mode, the operator must initiate a trigger for each AGS cycle, which contains 4 bunches. Either all 4 bunches are kicked into the Transfer Line, or a smaller number, depending on the number required to complete the pattern. (If less that 4 bunches are kicked into the Transfer Line, the remaining bunches in a cycle go to the AGS beam dump). In the automatic mode, the transfer of consecutive cycles occurs until the requested pattern is filled. The maximum number of bunches that could be transferred in the automatic mode is therefore 120, or 30 complete AGS cycles. Before the pattern can be repeated, an "Injection Reset" button must be hit.

Mike also mentioned that a new version of the application program is under development. The thrust of the changes being made is not to modify the description given above, but to add enhancements to automate, for example, "pre-injection" tuning to the Transfer Line beam stop. There was insufficient time in this meeting to discuss possible ways to monitor injected beam, but this topic should be considered further, perhaps in a sub-committee meeting.

Attachment

Distribution:

M. Brennan
P Ingrassia
B. Oerter
S. Peggs
P. Stein
RSC file
RSC